DESIGN ADVISORY GROUP #7 / AUGUST 29, 2019

INTRODUCTIONS









PORTLAND PUBLIC SCHOOLS

Brian Oylear, Project Director
Jen Sohm, Project Design Manager
Jamie Hurd, Project Manager
Mark Kline, Construction Manager

BASSETTI ARCHITECTS

Lorne McConachie, Principal
Joe Echeverri, Principal
Lydia Burns, Associate Principal
Matt Primovic, Design
Lyndon Julien-Sehl, Design

OPEN HOUSE - JUNE

COMMUNITY INPUT

+ One concern I have about the loss of parking at the Benson campus is the additional strain that student/ family/visitor even parking on the neighborhood streets
+ Selection o finish materials should, when appropriate, reflect the age of the building.
+ Second floor administration offices should look out over the (interior) common area to improve supervision rather than look out on the city.
+ Put a large LED sign on the Radio Tower that says "TECH"
+ ...leaving some of the grass berm is needed to not only respect the historical appearance of the main entry, but also soften it visually as opposed to a wall of concrete.

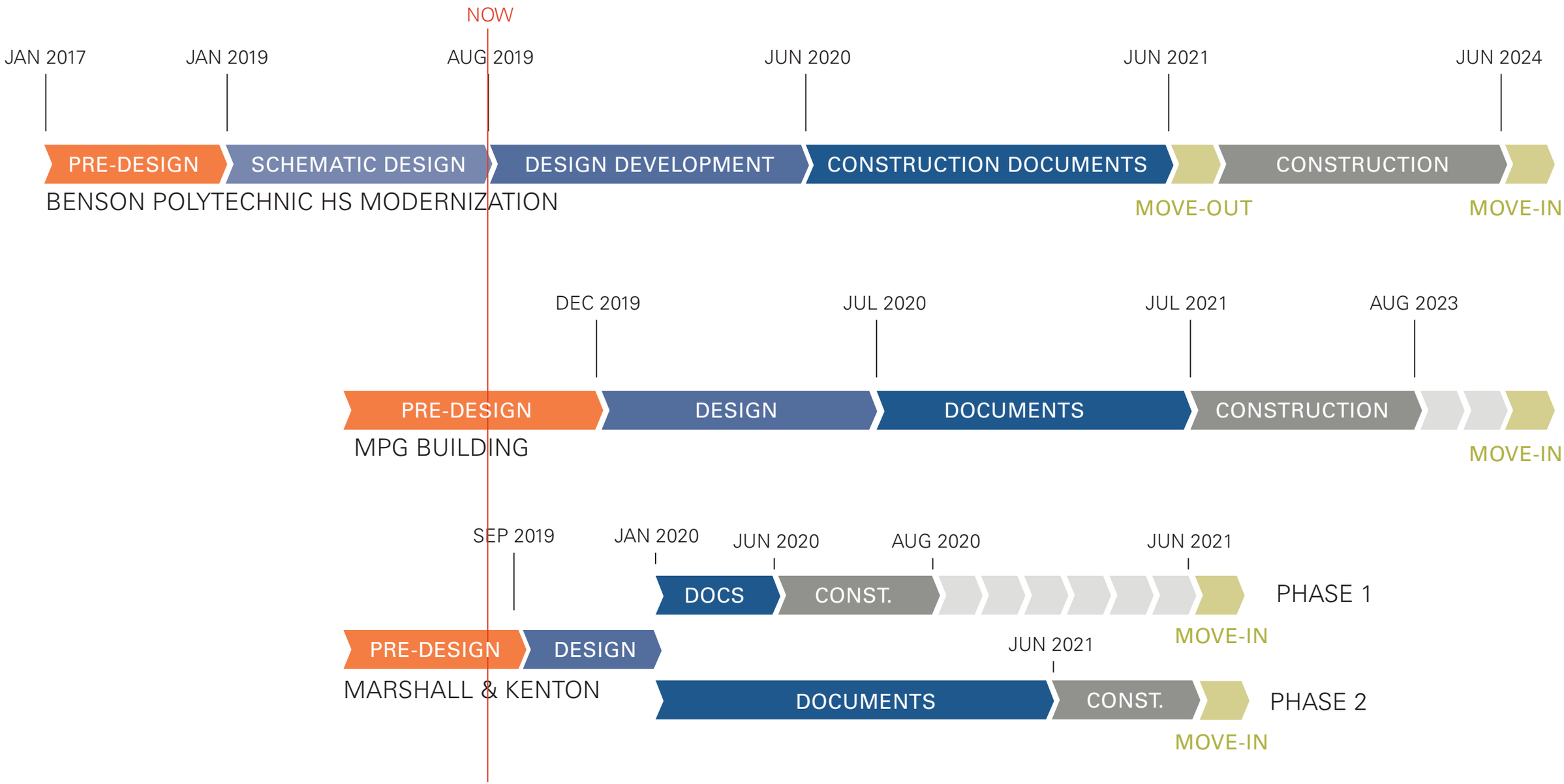
FRESHMAN ORIENTATION - AUGUST

DISCUSSION

+ Surprise – didn't know about the change in plans to swing offsite to Marshall
+ How will the CTE shops be accommodated at Marshall
+ Will all programs be offered at Marshall?
+ Transportation questions about swing site commute for students during construction
+ Franklin article – teaching sharing

PROJECT UPDATE /

PROCESS SCHEDULE



MPG UPDATE / INTEGRATION OF ALLIANCE AT MEEK INTO THE MPG BUILDING

Ground Floor (Parking)	41,400 SF
First Floor	42,400 SF
Second Floor	32,400 SF
Total	116,200 SF
Parking	115 Stalls

Schools & Programs at Parking Site:

+ Alliance @ Benson Classrooms & Science Labs
+ Alliance @ Benson CTE Culinary & Digital Arts
+ **Alliance @ Meek Classrooms & Science Labs**
+ **Alliance @ Meek CTE Auto and Manufacturing**
+ Reconnection Center
+ Reconnection Services
+ DART/Clinton School
+ Teen Parent with outdoor play area
+ Shared Multi-Purpose Room & Library
+ **Shared Gym/Activity Space & Lockers**
+ **Shared Commons/Flex and Kitchen**
+ Shared on-site parking for both Benson and MPG sites

Schools & Programs at Benson Campus:

+ None

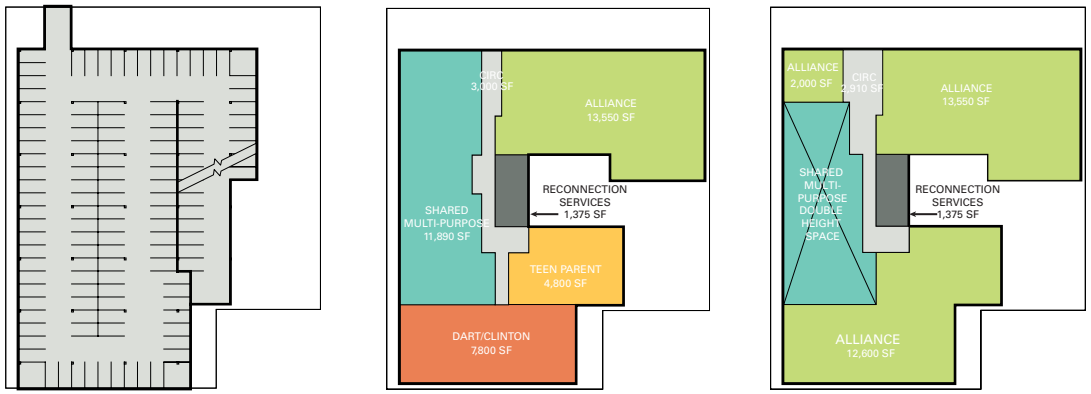
Schools & Programs at Kenton Campus:

+ None

Schools & Programs at Meek Campus:

+ None

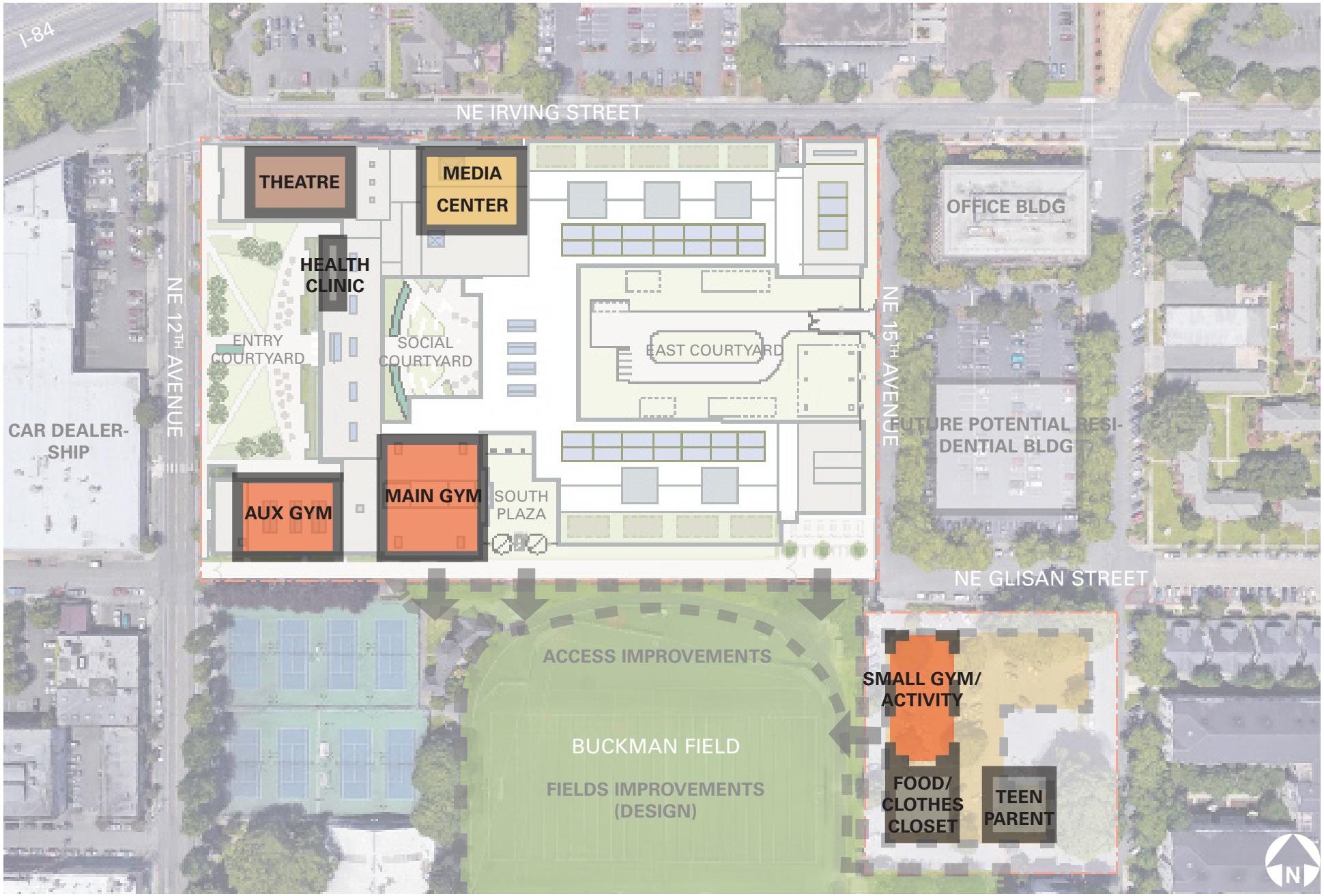
PARKING SITE:



GROUND FLOOR FIRST FLOOR SECOND FLOOR

BENSON CAMPUS: NO CHANGES

BENSON CAMPUS PROGRAM / SHARED RESOURCES



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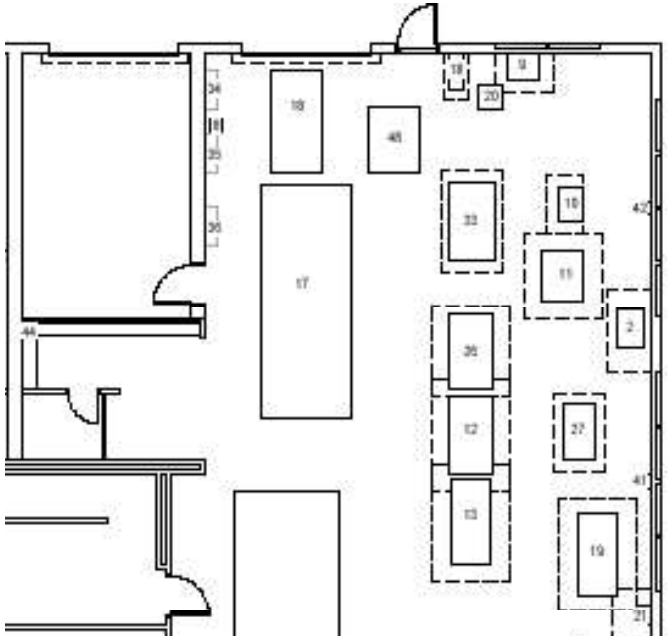
SUMMER INVESTIGATION WORK

DESIGN TEAM TASKS

+ Historic windows and doors assessment
+ Masonry assessment
+ Seismic design criteria
+ Portland BDS Early Assistance
+ Equipment surveying



CMGC SUPPORT

+ 100 task list of requested investigations
+ Destructive testing
+ Lessons learned ideas for HazMat, structural, dimensional verifications

SUMMER INVESTIGATION WORK

Activities included investigation for structure components within the existing buildings that will be refurbished – Auditorium, Administration and Gymnasiums.

- Removing wall finishes to drill concrete core for testing of the existing concrete strength.

SUMMER INVESTIGATION WORK

- Removed section of steel beams to test strengths and welded back sections

- Remove sections of rebar located in concrete columns and beams to test tensile strength of the existing rebar.

SUMMER INVESTIGATION WORK

- Brick removal to confirm wall conditions.

SUMMER INVESTIGATION WORK

- Test cleaning methods for façade terra cotta.

- Ground Penetrating Radar is being used in many location to locate exiting rebar in walls and floors, underground water, gas pipe lines and underground conduits.
- Many items throughout the facility is being test and analyzed for lead paint and asbestos.

WINDOW RESTORATION MOCK-UP

Window E-W-106: Pre-Rehabilitation conditions.

Window E-W-106: After Restoration (Exterior)

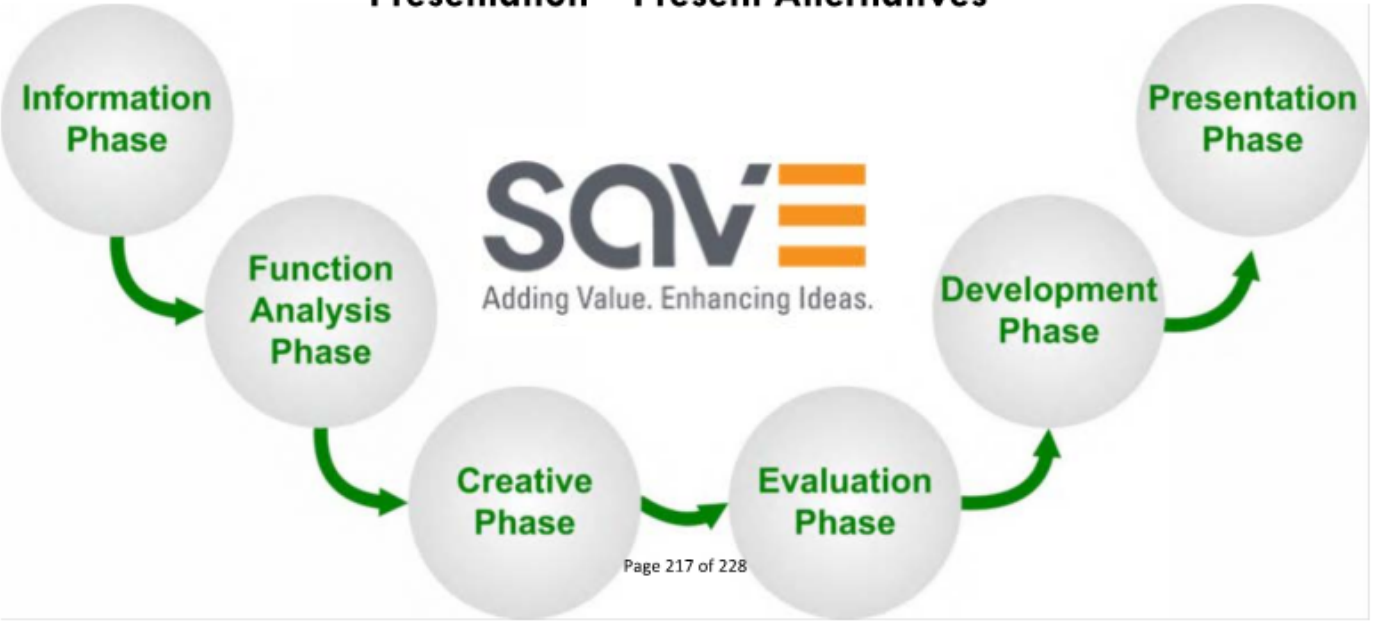
WINDOW RESTORATION MOCK-UP

Window A-S-205: Pre-Rehabilitation conditions.

Window A-S-205: After Restoration (Exterior).

VE Workshop Process

Information – Analyze Information
Function Analysis – Define Functions
Creative – Generate Ideas
Evaluation – Select Ideas
Development – Develop Ideas
Presentation – Present Alternatives

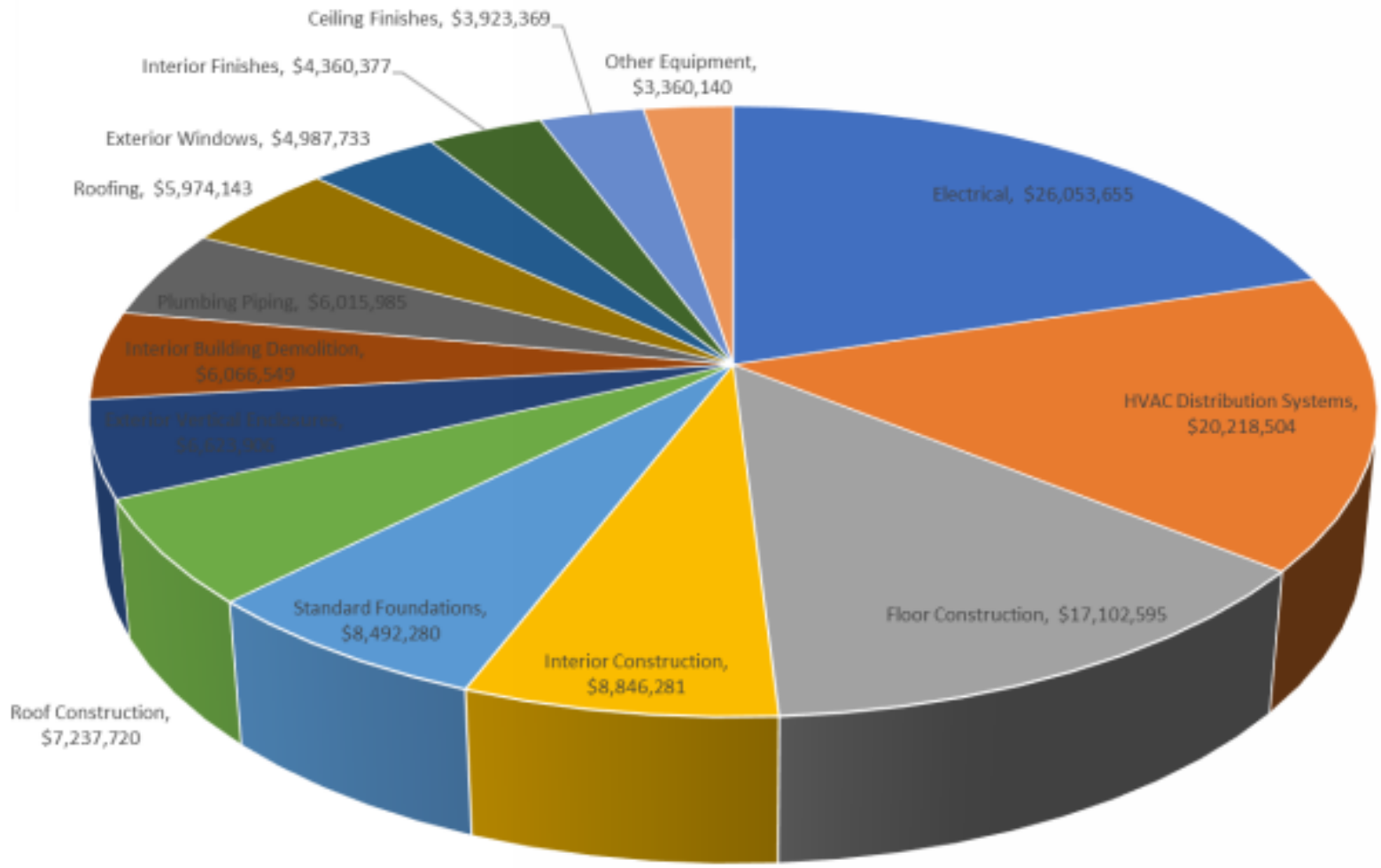


VE Workshop Defined Attributes

						TOTAL	%
Durability & Maintainability: 50-year life; ease and cost of maintenance; finishes; complexity of maintenance	**A**	a	a	a	e	f	3.0	20%
Visual Design Integrity: maintain integrity of the existing structure; community acceptance; maintain integrity of old and new	**B**	c	b	e	f	1.0	7%
Health, Safety & Wellness; Sustainability: open space; daylighting; fresh air; seismic above and beyond the code; (include **Sustainability**)	**C**	c	c/e	c/f	3.0	20%
Sustainability: certify for LEED Silver for design and new construction	**D**	e	f	0.0	0%
Adaptability & Flexibility: evolve to meet on-going and future educational needs	**E**	f	3.5	23%
Functionality: building is a learning tool; appropriate adjacencies and co-locations through design and construction	**F**	4.5	30%
						15.0	100%

a	More Important
a/b	Equal Importance

Cost Breakdown by Category



Portland Public Schools - Benson High School
Pareto_Andersen Chart (Top 80% Only)

Construction Budget Draft Summary

Target Budget for Construction Costs (BHS Only)	$ 225,000,000	
3rd Party Estimate	$ 233,000,000	
Initial SD Estimate	$ 261,000,000	
Delta	**$ 31,000,000**	**(+13.8%)**
PATH TO BUDGET		
VE Workshop Results (COW Only)	$ (9,6000,000)	
Negotiated GC's/GR's/Allowances/YTB's	$ (11,000,000)	
Target Budget Adjustment	$ 4,000,000	
Post Summer Investigation Adjustment	$ (6,400,000)	
Revised Total Project Budget	**$ 229,000,000**	**(+1.8%)**

BUDGET AND VALUE ENGINEERING

KEY VALUE ENGINEERING ITEMS

+ More efficient structural layout - reduce long spans
+ Simply specification and reduce quantity of trench drains
+ Eliminate green wall at gym building exterior
+ Replace rooftop penthouses with mechanical screens
+ Simplify lighting scheme - limit amount of different or custom fixtures
+ Provide some redundancy with conduit and pull string, rather than all fixed panels and wiring

BUDGET AND VALUE ENGINEERING

Next Steps:

- 215 Ideas generated during the VE Workshop
- Develop remaining cost reduction ideas
- Evaluate risk reduction opportunities after summer investigation work
- Analyze budget after 100% SD documents are complete
- Develop list of scope reductions items if necessary, i.e. access improvements to Buckman Field, shelled space……

Workshop Outcome	Number	Section of Report/Summary
Number of Ideas Brainstormed	216	See Creative Idea List (found in Section 4: Support Data)
Total Number of Ideas Developed	33	See Section 2: Summary Information
Great Opportunities ("5s") Developed	9	See Section 2: Summary Information and Section 3: Value Engineering Workbooks
Good Opportunities ("4s") Developed	28	
Cost Cutting / Cost Deferral Ideas ("3s"), costed only	59	See Section 2: Summary Information
Number of Design Comments (DC), Not Developed	35	See Section 2: Summary Information
Number of Estimate Corrections (EC), Not Developed	8	See Section 2: Summary Information
Great Opportunities ("5s") Accepted and Conditionally Accepted	7	Potential Cost Avoidance - $0.9M
Good Opportunities ("4s") Accepted and Conditionally Accepted	19	Potential Cost Avoidance - $5.7M

PORTLAND LANDMARKS COMMISSION

NOW

JAN 2017 | JAN 2019 | AUG 2019 | JUN 2020 | MAY 2021 | AUG 2024

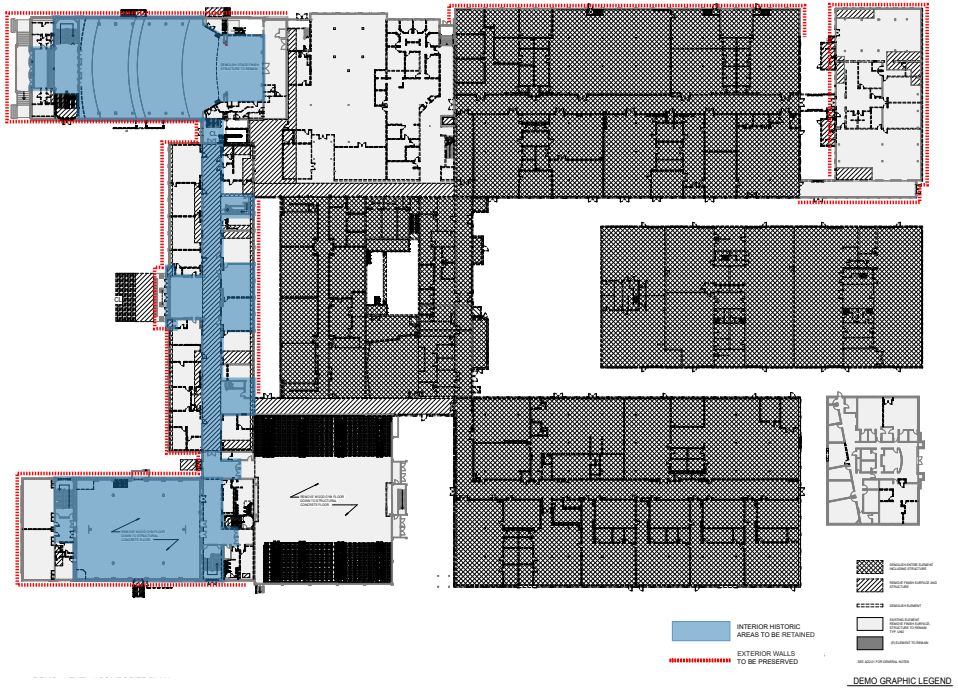
PRE-DESIGN | SCHEMATIC DESIGN | DESIGN DEVELOPMENT | CONSTRUCTION DOCUMENTS | CONSTRUCTION

BENSON POLYTECHNIC HS MODERNIZATION

FEB 2020 (ASSUMED)

TYPE III - HISTORIC

DESIGN ADVICE REQUEST (DAR)



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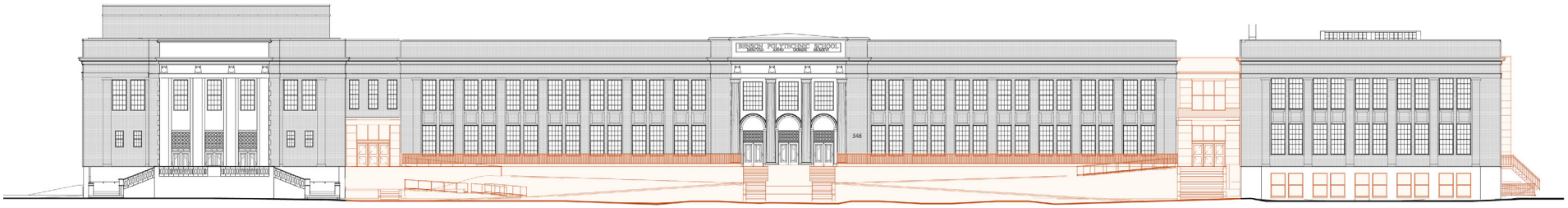
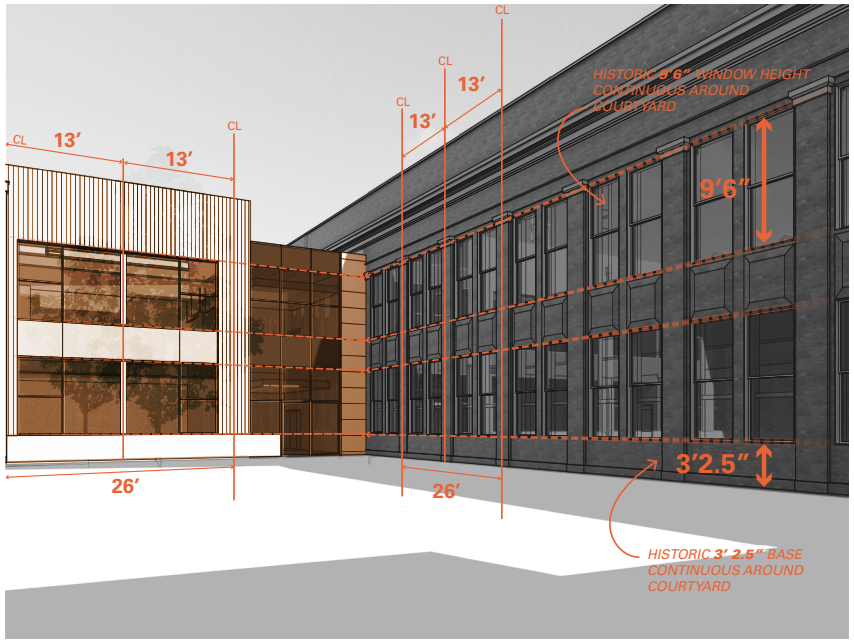
PORTLAND LANDMARKS COMMISSION

West Elevation (Buildings A, E, G1) - Existing



West Elevation (Buildings A, E, G1) - Proposed



Proportional Relationship of Existing and New Facades

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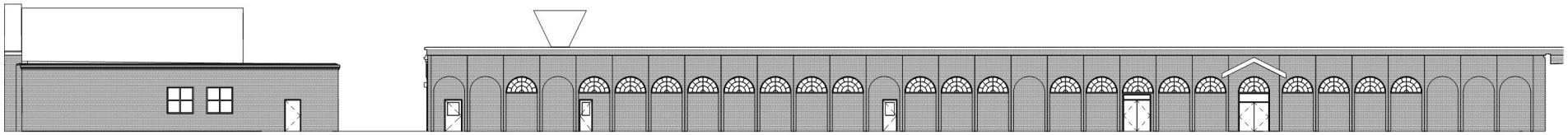
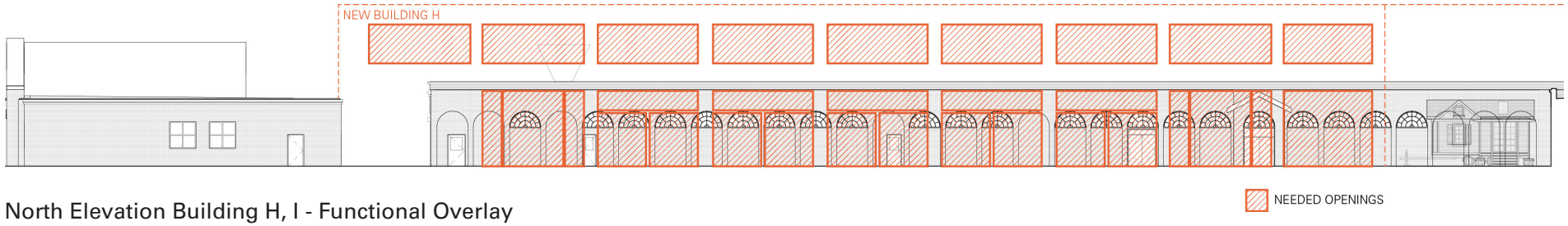
CTE Courtyard Elevations



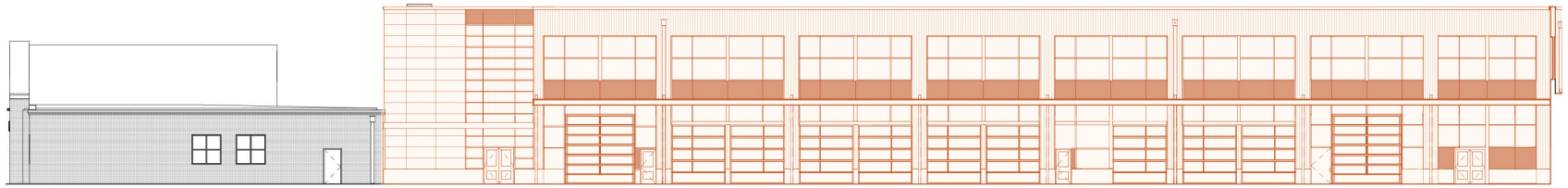
North Elevation Building H, I - Existing



North Elevation Building H, I - Functional Overlay

Proposed fenestration and size (red) overlaid on existing facade (black/gray)

Comments: Current configuration cannot support required openings for vehicle access and daylight needs



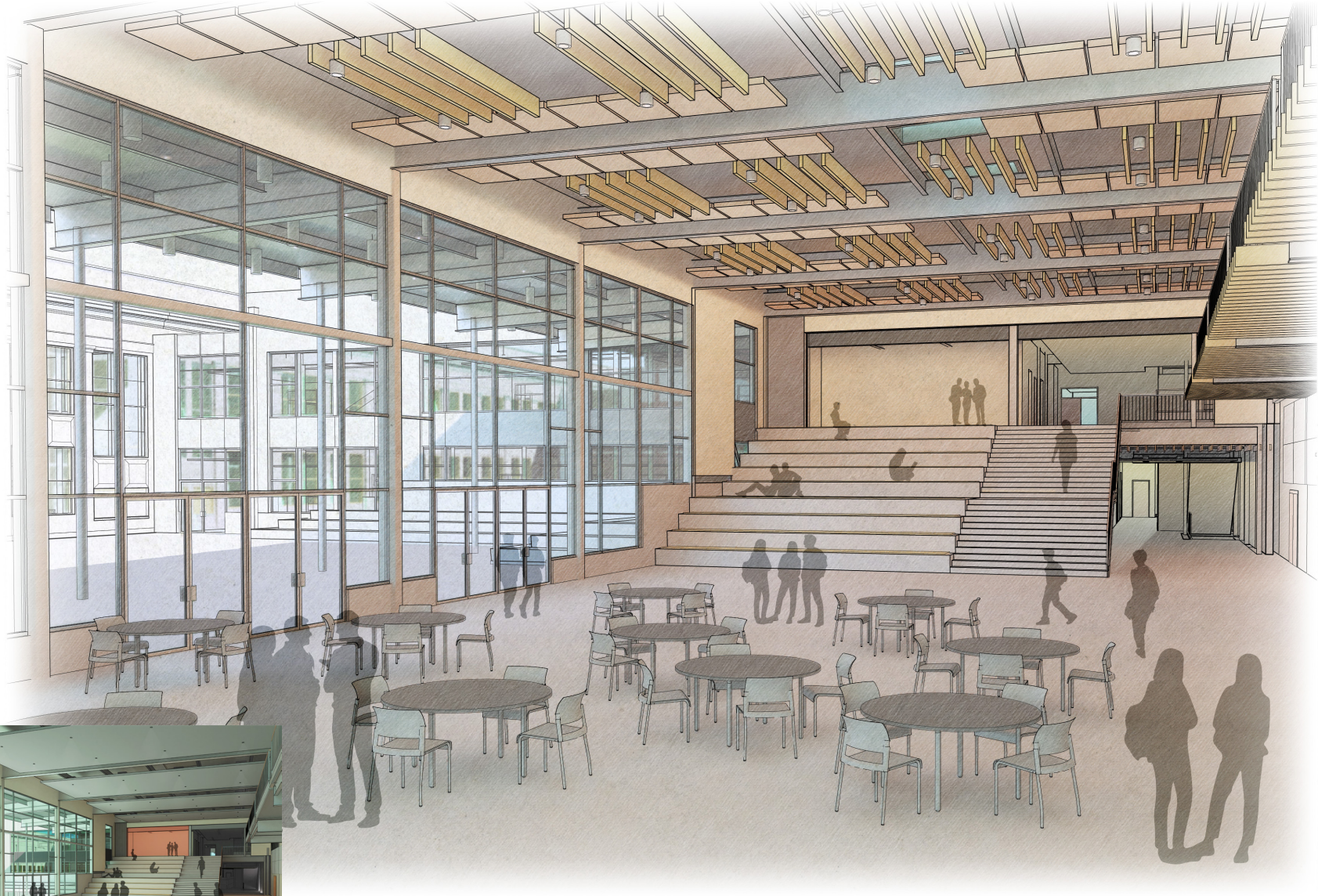
North Elevation Building H, I - Proposed

KEY TAKEAWAYS FROM DESIGN ADVICE REVIEW

DISCUSSION ITEMS

+ Illustrate CTE courtyard functions more clearly, make the strong case for replacement of the interior facades. Show vehicular circulation, project needs (i.e. tiny houses, auto program, etc), zoning of the courtyard with functional overlay
+ Clarify west courtyard response to public use, eliminate railing if possible
+ Refine and clarify new building fenestration, provide details that show careful attention to historic response in a modern way.
+ Refine materials, showing scale response to existing historic elements
+ Review and consider keeping all or a portion of the South facade of the South wing, if feasible with program and building footprint

DESIGN UPDATES



DESIGN UPDATES

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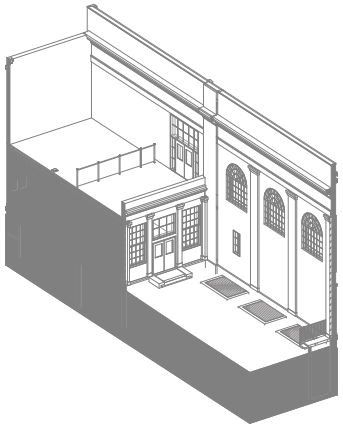

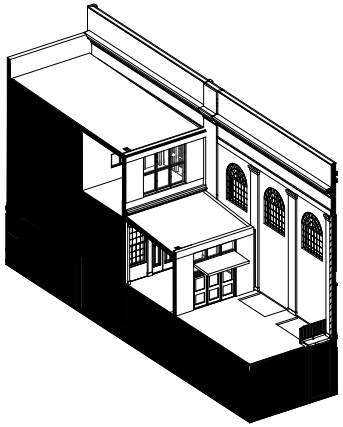

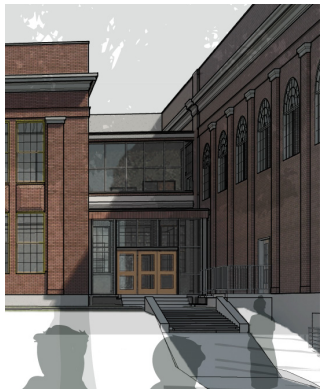

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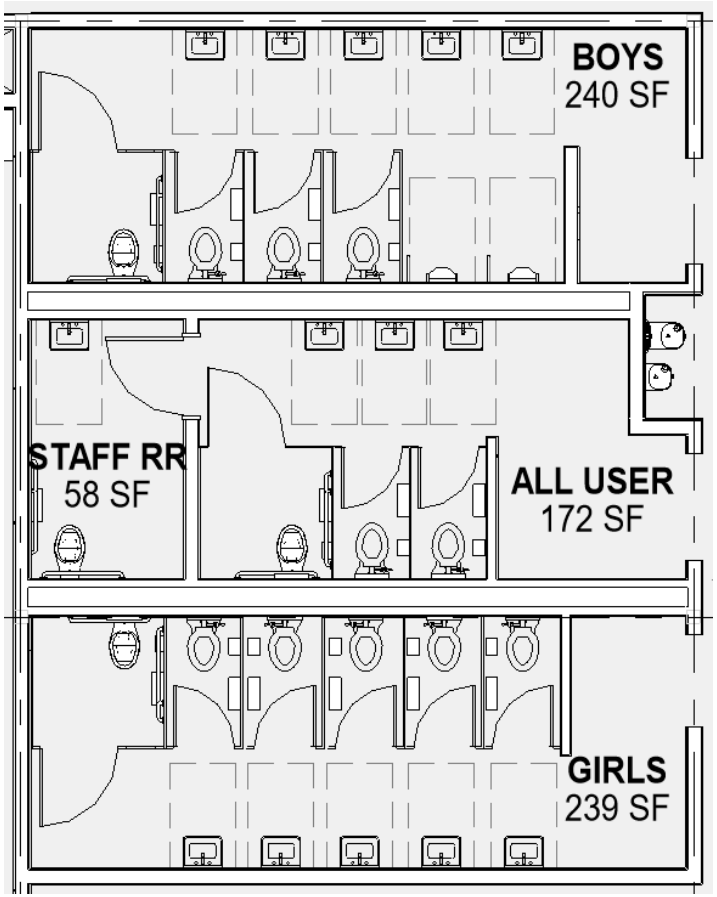
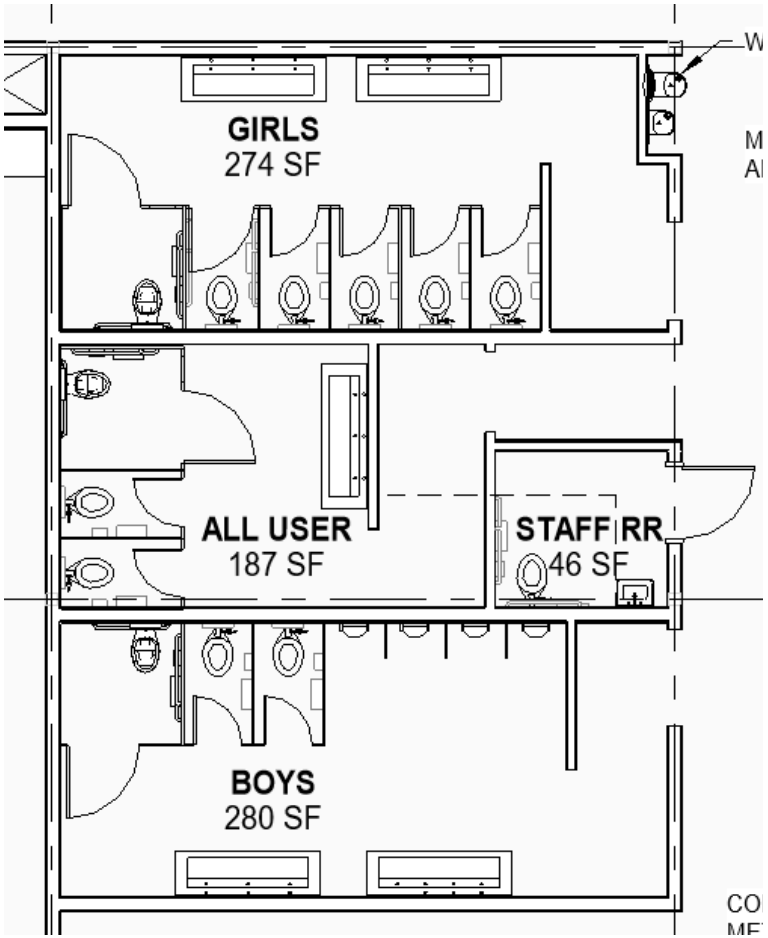
GSA VISIT: REVISED RESTROOM DESIGN

DISCUSSION

+ New design needs to have all user restrooms that are easy to access, distributed
+ Problem with existing is there are a small number of single stalls
+ Inadequate due to time between classes and trying to find one available
+ Need more single stalls or multi-stall gender neutral (like PCC)
+ In general, need more bathrooms due to inadequate #
+ Signage is needed at all restrooms to communicate other options and their location
+ Single use restrooms need occupancy indicators
+ Restrooms need adequate ventilation
+ Students don't feel comfortable changing in front of others in locker room
+ Need curtained stalls
+ No place for gender neutral students to change

GSA VISIT: REVISED RESTROOM DESIGN





90% SD LAYOUT

14 WATER CLOSET FIXTURES
14 LAVATORIES
2 URINALS

100% SD LAYOUT

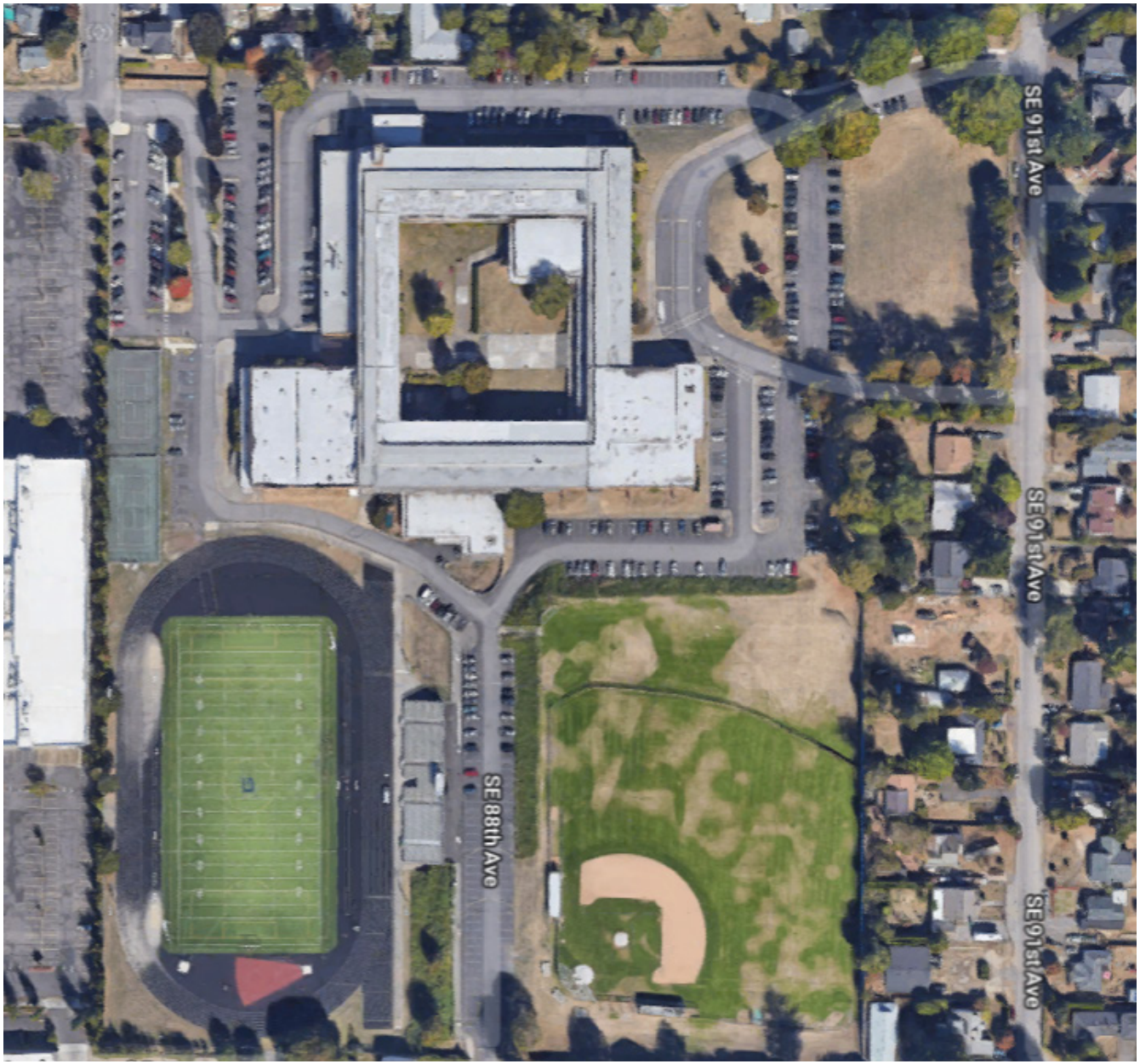
13 WATER CLOSET FIXTURES
17 LAVATORIES
4 URINALS

MARSHALL SWING UPDATE /

MARSHALL CAMPUS / BENEFITS

SITE BENEFITS

+ Track and turf field with grandstands
+ Other fields, athletic facilities
+ Ample parking
+ Secured interior courtyard adjacent to commons/cafeteria



MARSHALL MASTER PLAN / SITE OVERVIEW

TARGET APPROX. 20,000 SF OF NEW CTE SHOP SPACE ON-SITE

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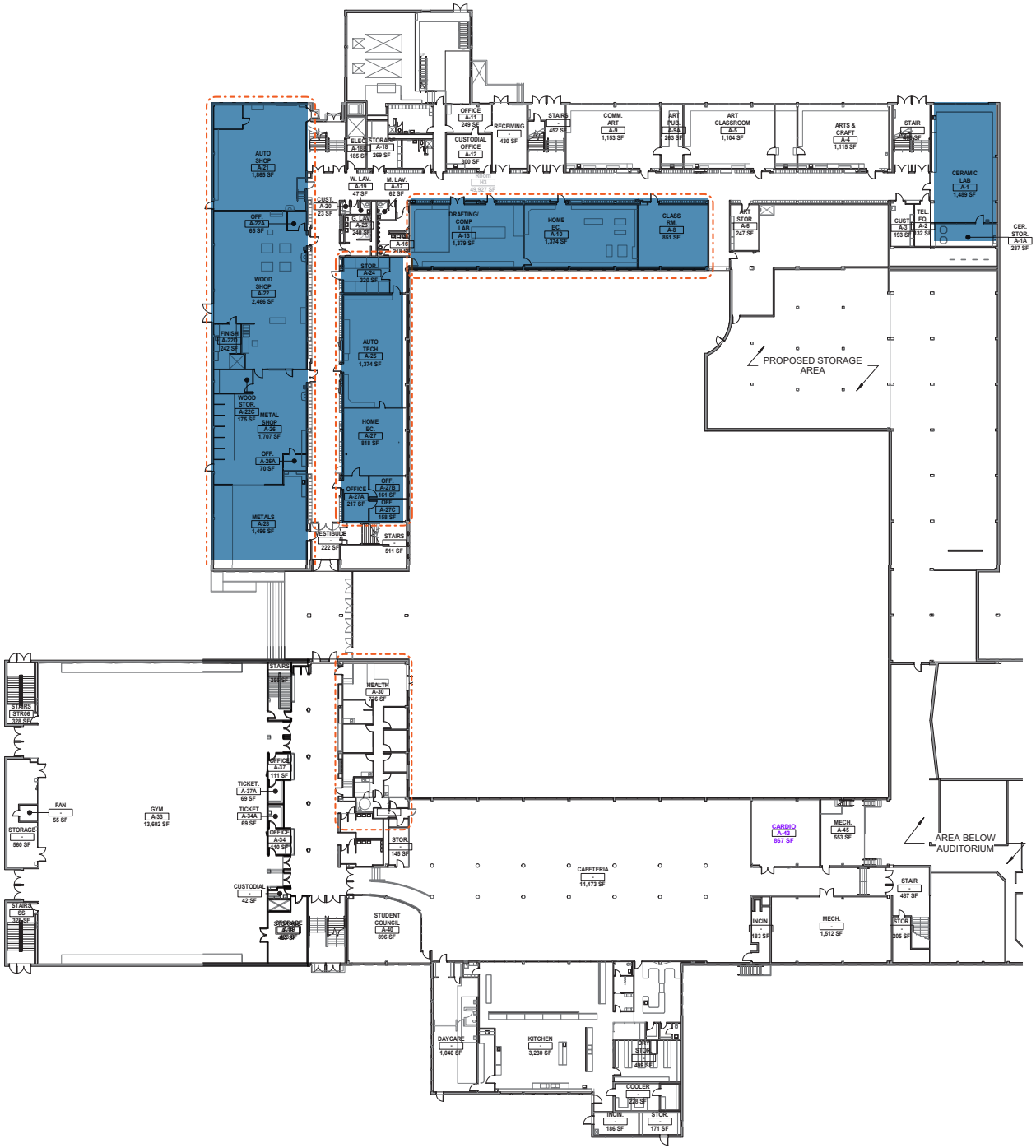
MARSHALL MASTER PLAN / LOWER LEVEL



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MARSHALL MASTER PLAN / MAIN LEVEL

BENSON POLYTECHNIC HIGH SCHOOL / DAG #7 (08.29.2019)

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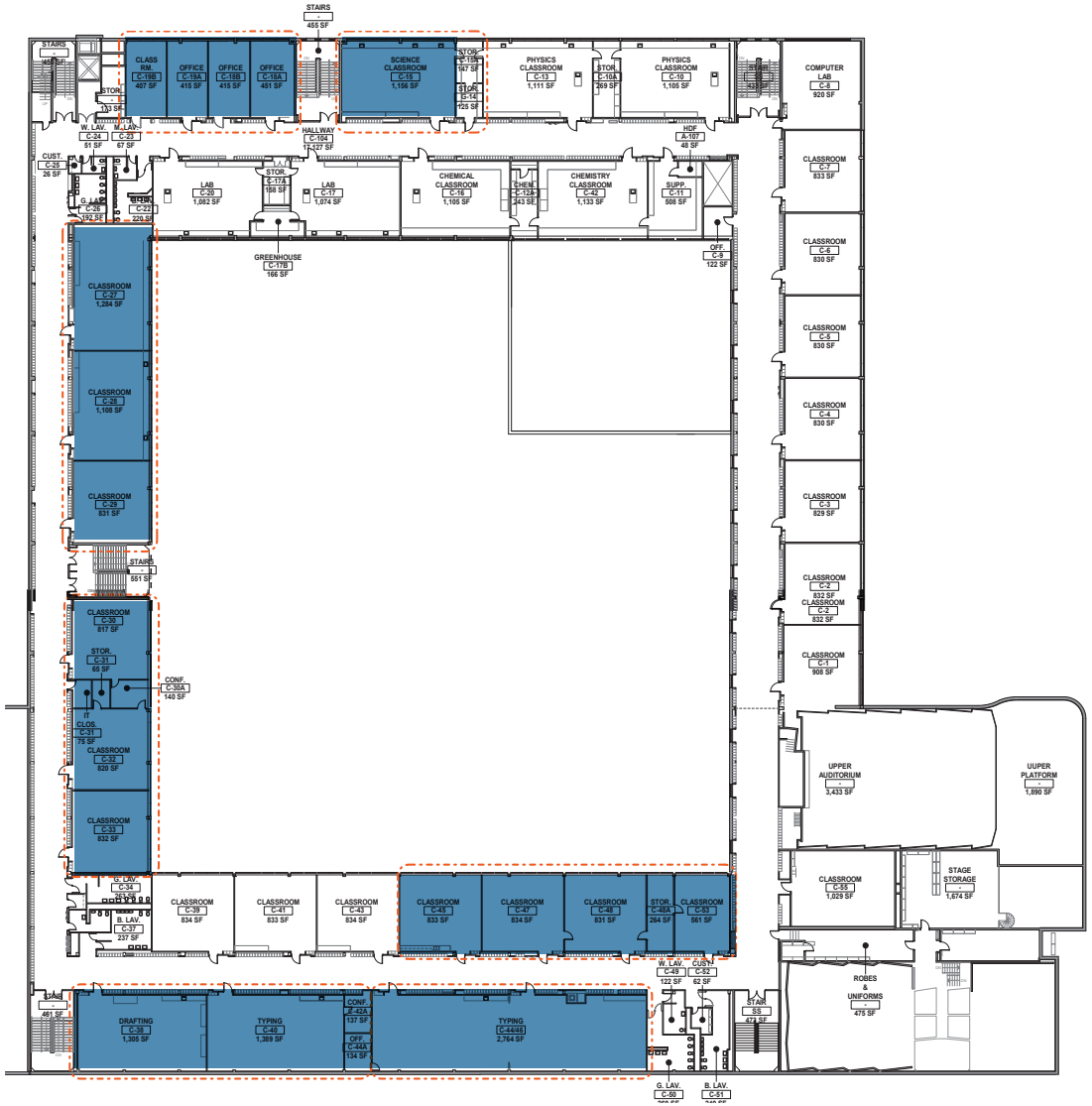
MARSHALL MASTER PLAN / UPPER LEVEL



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MARSHALL MASTER PLAN / CTE PROGRAM COMPARISON

CTE PROGRAM	EXISTING	SWING TARGET	ED SPEC
DESIGN & APPLIED ARTS	1,939 SF	1,800 SF	3,600 SF
ARCHITECTURE	0 SF	0 SF	3,600 SF (TBD)
ENGINEERING	3,714 SF	2,000 SF	3,600 SF
COMPUTER ENGINEERING	3,986 SF	3,000 SF	3,600 SF
RADIO	5,709 SF	3,000 SF	5,709 SF
DIGITAL MEDIA	6,994 SF	4,600 SF	7,200 SF
ELECTRIC	10,233 SF	6,000 SF	7,200 SF
HEALTH OCCUPATIONS	7,899 SF	6,000 SF	7,200 SF
TRANSPORTATION - AUTO	29,000 SF	10,000 SF	14,400 SF
MANUFACTURING	27,145 SF	10,000 SF	14,400 SF
CONSTRUCTION (W/ MATH TECH)	8,266 SF	8,000 SF	14,400 SF
UNASSIGNED CTE SUITES	0 SF	0 SF	3,600 SF

NEXT STEPS - MARSHALL SWING SITE

STAKEHOLDER ENGAGEMENT

+ Review existing spaces with Benson staff (mid-to late Sept. target)
+ Site visit with Benson staff and Design Advisory Group (Sept. or Oct. target)

PROJECT TASKS

+ Refinement of swing site Master Plan and scoping documents (2019)
+ Development of comprehensive transportation plan (by 2020)
+ Site investigations - systems, utilities, soils, etc. (ongoing through 2021)
+ Construction
    + Phase 1 - Summer 2020
    + Phase 2 - Fall 2020 through Summer 2021

PUBLIC COMMENT /

THANK YOU.